## What is claimed is:

| 1 - | Claim 1.                                                                             | An isolated glycogonjugate peptide.                              |
|-----|--------------------------------------------------------------------------------------|------------------------------------------------------------------|
| 1   | Claim 2.                                                                             | An isolated glycoconjugate comprising at least one               |
| 2   | carbohydrate moiety associated with a peptide having the amino acid sequence of      |                                                                  |
| 3   | SEQ ID NO. 1.                                                                        |                                                                  |
| 1   | Claim 3.                                                                             | An isolated glycoconjugate comprising at least one               |
| 2   | carbohydrate moiety associated with a peptide having the amino acid sequence of      |                                                                  |
| 3   | SEQ ID NO. 2.                                                                        |                                                                  |
| 1 , | Claim 4.                                                                             | A peptide having the amino acid sequence of SEQ ID NO. 1.        |
| 1   | Claim 5.                                                                             | A peptide having the amino acid sequence of SEQ ID NO. 2.        |
| 1   | Claim 6.                                                                             | A method of inhibiting or preventing the attachment of influenza |
| 2   | virus particles to the cells of a human patient comprising administering to the      |                                                                  |
| 3   | patient a therapeutically effective amount of a glycoconjugate to thereby bind to    |                                                                  |
| 4   | said influenza virus particles and thereby inhibit or prevent the attachment of said |                                                                  |
| 5   | particles to the cells.                                                              |                                                                  |
| 1 . | Claim 7.                                                                             | The method of claim 6 wherein the glyconjugate comprises a       |
| 2   | neuraminic acid-hexosamine linkage.                                                  |                                                                  |
| 1   | Claim 8.                                                                             | The method of claim 6 wherein the patient is in the first or     |
| 2   | second trimester of pregnancy.                                                       |                                                                  |
| 1.  | Claim 9.                                                                             | A method of treating schizophrenia comprising administering to   |
| 2   | a patient in need thereof a therapeutically effective amount of D-glucosamine-HCl    |                                                                  |
| 2   | to thereby increase the concentration of brain alyconiugates in said nationt         |                                                                  |

The method of claim 9 wherein said therapeutically effective 1 Claim 10. amount is in the range of from about 50 to about 500 mg per day. 2 Claim 11. The method of claim 9 wherein said therapeutically effective 1 amount is about 200 mg per day. 2 Claim 12. A purified monoclonal antibody which specifically recognizes a 1 peptide having the amino acid sequence of SEQ ID NO. 1. 2 A purified monoclonal antibody which specifically recognizes a 1 Claim 13. 2 peptide having the amino acid sequence of SEQ ID NO. 2. Claim 14. A purified monoclonal antibody which specifically recognizes aglyco protein 10B. A therapeutic composition for increasing antimalignin antibody Claim 15. 1 concentration in a patient in need thereof comprising a peptide selected from the 2 group consisting of a peptide of SEQ ID NO. 1, a peptiode of SEQ ID NO. 2, 3 aglycoprotein 10B, and combinations thereof. Claim 16. A method of treating chronic viral infection comprising 1 2 administering to a patient in need thereof a therapeutically effective amount of a peptide selected from the group of consisting of a peptide of SEQ ID NO. 1, a 3 peptide of SEQ ID NO. 2, aglycoprotein 10B, and combinations thereof. 4 Claim 17. The method of claim 16 wherein the chronic viral infection is 2 HIV. A method of diagnosing cancer associated with chronic viral Claim 18. 1 disease in a patient comprising detecting transformation to malignant cells in said 2

patient, said transformation being detected by a determination of an elevated level

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of aglycoprotein 10B antibody in blood or aglycoprotein antigenic peptides in blood 4 5 or tissue of said patient. Claim 19. The method of claim 18 wherein the cancer associated with 1 chronic viral disease is hepatocarcinoma. 2 Claim 20. A therapeutic composition comprising purified antibody which 1 2 specifically recognizes a peptide selected from the group consisting of a peptide of SEQ ID NO. 1, a peptide of SEQ ID NO. 2, aglycoprotein 10B. 3 1 Claim 21. A method of treating brain tumors comprising administering to a patient in need thereof a therapeutically effective amount of diphenylhydantoin to 2 3 thereby increase the level of brain glycoconjugates in said patient. Claim 22. The method of claim 19 wherein the therapeutically effective 1 2 amount is in the range of from about 0.5 to about 2 mg/kg body weight. Claim 23. A kit for determining the concentration of aglycoprotein 10B 1 2 antigenic epitopes present in blood of a patient comprising at least one blood collection tube or pipette and anti-malignin antibody. 3 Claim 24. The kit according to claim 21 wherein said antibody is coated 1 on the inner surface of the test tube or pipette. 2 Claim 25. A kit for determining the concentration of anti-malignin antibody 1 present in blood of a patient comprising at least one blood collection tube or pipette 2 and peptide having the amino acid sequence of SEQ ID NO. 1 or SEQ ID NO. 2. 3

The kit of claim 23 wherein the peptide is coated on the inner

Claim 26.

surface of the tube or pipette.

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| 1 . | Claim 27. An isolated nucleic acid encoding a peptide comprising the                |  |  |
|-----|-------------------------------------------------------------------------------------|--|--|
| 2   | amino acid acid sequence of SEQ ID NO. 1 or SEQ ID NO. 2.                           |  |  |
|     |                                                                                     |  |  |
| 1   | Claim 28. A method for diagnosing cancer in a patient which comprises               |  |  |
| 2   | determining the presence of aglycoprotein 10B antigenic peptide in the blood of     |  |  |
| 3   | said patient.                                                                       |  |  |
|     |                                                                                     |  |  |
| 1   | Claim 29. A method for determining the presence of aglyco products in               |  |  |
| 2   | the blood or tissue of a patient which comprises                                    |  |  |
| 3   |                                                                                     |  |  |
| 4   | 1) determining the amount of carbohydrate moieties of glycoproteins                 |  |  |
| 5   | isolated from the blood or tissue of said patient; and                              |  |  |
| 6   |                                                                                     |  |  |
| 7   | 2) comparing the amount of said carbohydrate moieties to the amount of              |  |  |
| 8   | carbohydrate moities associated with glycoproteins isolated from blood or tissue of |  |  |
| 9   | healthy control individuals.                                                        |  |  |
|     |                                                                                     |  |  |
| 1   | Claim 30. The method of claim 29 further comprising the step of                     |  |  |
| 2   | determining the presence and concentration of antibodies to aglycopeptides in the   |  |  |
| 3   | blood of said patient.                                                              |  |  |
|     |                                                                                     |  |  |
| 1   | Claim 31. A method of diagnosing schizophrenia in a patient which                   |  |  |
| 2   | comprises                                                                           |  |  |
| 3   | measuring the amount of neuraminic acid and hexosamine in                           |  |  |
| 4   | glycoproteins isolated from cerbral spinal fluid of said patient;                   |  |  |
| 5   |                                                                                     |  |  |
| 6   | 2) comparing said amount to a level of neuraminic acid and hexosamine in            |  |  |
| 7   | glycoproteins isolated from cerbral spinal fluid of healthy individuals; and        |  |  |
| 8   |                                                                                     |  |  |
| 9   | correlating the amount of neuraminic acid and hexosamine in                         |  |  |
| n · | alveoproteins isolated from cerbral spinal fluid of said patient to the presence or |  |  |

absence of schizophrenia.